

Final Report

of the

SBREFA Small Business Advocacy Review Panel

on EPA's Planned Proposed Rule for

Effluent Limitations Guidelines and Standards

for the

Transportation Equipment Cleaning Industry

September 23, 1997

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INTRODUCTION

The Small Business Advocacy Review (SBAR) Panel has prepared this report for the rulemaking entitled **“Effluent Limitations Guidelines and Standards for the Transportation Equipment Cleaning Industry”** that the Environmental Protection Agency (EPA) is currently developing. The Panel was convened by EPA’s Small Business Advocacy Chairperson, Thomas E. Kelly, under Section 609(b) of the Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA). In addition to its chairperson, members of the Panel include Sheila E. Frace, Acting Director of the Engineering and Analysis Division within EPA’s Office of Water; Sally Katzen, Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget; and Jere W. Glover, Chief Counsel for Advocacy of the Small Business Administration.

The purpose of the Panel is to collect the advice and recommendations of representatives of small entities that may be affected by the rule and to report on those comments and the Panel’s findings as to issues related to the key elements of an initial regulatory flexibility analysis (IRFA) under Section 603 of the RFA. The elements of an IRFA are:

- The number of small entities to which the proposed rule will apply.
- Projected reporting, recordkeeping, and other compliance requirements of the proposed rule, including the classes of small entities which will be subjected to the requirements and the type of professional skills necessary for preparation of the report or record.
- Other relevant Federal rules which may duplicate, overlap, or conflict with the proposed rule.
- Any significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities.

Once completed, the Panel report is provided to the agency issuing the proposed rule and is included in the rulemaking record. In light of the Panel report, the agency will consider changes to the proposed rule or the IRFA for the proposed rule, where appropriate.

This report by the Panel for the Transportation Equipment Cleaning Industry (TECI) proposed rule includes a summary of the advice and recommendations received from each of the small entity representatives identified for purposes of the panel process. Written comments submitted by the representatives are provided in

Attachment A to the report. The report also presents the Panel’s findings and a discussion of issues related to the elements of an IRFA identified above.

SCOPE AND BACKGROUND

The objective of the Clean Water Act (CWA) is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” EPA is developing effluent limitations and pretreatment standards for existing and new transportation equipment cleaning facilities to limit the discharge of pollutants into waters of the United States and the introduction of pollutants into publicly owned treatment works (POTWs).

The TECI consists of facilities that generate wastewater from cleaning the interior of tank trucks, closed top hopper trucks, rail tank cars, closed top hopper rail cars, intermodal tank containers, intermediate bulk containers, tank barges, closed top hopper barges, and ocean/sea tankers. EPA estimates that 692 facilities may be affected by the proposed rule because they discharge their cleaning wastewater to a POTW or to surface waters.

EPA plans to subcategorize the industry as follows based upon type of tank cleaned, type of cargo cleaned, and influent wastewater characteristics: Truck/Chemical, Rail/Chemical, Barge/Chemical, Truck/Petroleum, Rail/Petroleum, Truck/Food, Rail/Food, Barge/Food, Truck/Hopper, Rail/Hopper, and Barge/Hopper. Table 1 shows an estimate of the number of affected facilities in each subcategory.

Table 1: Number of Potentially Affected Facilities by Subcategory

Subcategory	Number of Affected Facilities
Truck/Chemical	288
Rail/Chemical	38
Barge/Chemical	15
Truck/Petroleum	34
Rail/Petroleum	3
Hopper	51
Food Grade	261

PROFILE OF THE INDUSTRY

The TECI consists of two types of business structures with respect to TEC operations: in-house facilities and commercial facilities. In-house facilities mainly perform cleaning of their own transportation equipment and have very few commercial clients. Most of these facilities perform less than 10 percent of their total cleaning for

other companies. Based on EPA's 1994 survey of the industry, EPA has identified 452 in-house affected facilities in the industry. Commercial facilities are more dedicated to performing cleaning for customers with which they have established contracts. Most of these facilities perform more than 90 percent commercial cleaning. Based on EPA's survey, EPA has identified 240 commercial affected facilities in the industry. These estimates do not include facilities that occasionally clean transportation equipment incidental to the repair of that equipment, as EPA does not currently intend for these operations to be covered by the TECI proposal.

In addition to the facilities described above, there is a universe of facilities that clean transportation equipment used to transport commodities processed by the facility. These facilities generally commingle their TEC wastewaters with process wastewaters, covered under existing effluent guidelines, prior to treatment. EPA does not currently intend for these operations to be covered by the TECI proposal.

The TECI includes intermediate bulk containers (IBCs), also called "totes," that are cleaned at transportation equipment cleaning facilities. Facilities that clean IBCs have been included in EPA's TECI industry profile and are typically facilities that also clean tanks that transport chemicals. Eighty of the 692 affected TECI facilities, about 12 percent of all TECI facilities, clean IBCs. These facilities clean about 90,000 IBCs per year, which are about 21 percent of all tanks cleaned in the truck/chemical subcategory.

The TECI currently discharges 1.1 million pounds of toxic pollutants and over 6 million pounds of conventional pollutants per year. EPA has evaluated for regulation approximately 40 organic, 13 metal, and 4 conventional pollutants. EPA has not yet determined the final list of pollutants which will be regulated.

APPLICABLE SMALL BUSINESS DEFINITIONS

EPA has carefully considered the appropriate definition for a small entity. The Agency reviewed SBA's small business definition for all standard industrial classification (SIC) codes for this industry. Firms that own facilities that provide transportation equipment cleaning services are found in more than 35 SIC codes. Table 2 shows the different SIC's for the TEC industry. SBA's definitions for these SIC codes are based on either annual revenues or employment. Nearly 40 percent of TECI facilities reported in the detailed questionnaire an SIC code that has a \$5.0 million annual revenue definition; 33 percent reported an SIC code with an annual revenue definition of \$18.5 million.

EPA conducted a series of economic analyses regarding distribution of facilities by size. These analyses provided revenue and employment distributions of the facilities by subcategory and for the entire industry. In addition, the Agency's contacts with the TECI indicate that most business entities that provide tank cleaning services are small. As a result of these analyses, for purposes of its initial regulatory flexibility analysis, EPA has defined a facility as a "small business" if it is owned by a firm that receives \$5.0 million or less in annual revenue.

Table 2
SBA Standards by 4-Digit SIC Codes
for TECI Weighted Affected Facilities

SIC	Category	4-Digit SIC Code	SBA Standard	Weighted Facilities	Percent of Facilities
15	Building Construction	1560	\$17,000,000	3	0.4
20	Food and Kindred Products	2037	500 emp.	17	2.5
		2041	500 emp.		
		2077	500 emp.	41	5.9
		2079	750 emp.	87	12.6
28	Chemicals and Allied Products	2821	750 emp.		
37	Transportation Equipment	3715	500 emp.		
		3731	1,000 emp.		
		3732	500 emp.		
		3743	1,000 emp.	3	0.4
		3799	500 emp.		
39	Miscellaneous Manufacturing Industries	3930	750 emp.	7	1.0
42	Motor Freight Transportation & Warehousing	4200	\$18,500,000	44	6.4
		4210	\$18,500,000	14	2.1
		4212	\$18,500,000	13	1.9
		4213	\$18,500,000	138	19.9
		4231	\$5,000,000	61	8.8
44	Water Transportation	4400	\$20,500,000	2	0.3
		4463	\$20,500,000	1	0.1
		4491	\$18,500,000	11	1.6
		4492	\$5,000,000	7	1.0
		4499	\$5,000,000	6	0.9
47	Transportation Services	4700	\$18,500,000	7	1.0
		4741	\$5,000,000	13	1.9
		4785	\$5,000,000	1	0.1
		4789	\$5,000,000	12	1.7
51	Wholesale Trade - Nondurable Goods	5161	100 emp.	11	1.6
		5172	100 emp.	9	1.3
63	Insurance Carriers	6338	\$5m / 1,500 empl.	7	1.0
65	Real Estate	6512	\$5,000,000		
		6599	\$15,000,000		
73	Business Services	7398	\$18,000,000	9	1.3
75	Automotive Repair, Services, and Parking	7512	\$18,500,000	2	0.3
		7513	\$18,500,000		
		7514	\$18,500,000		
		7542	\$5,000,000	22	3.2
76	Miscellaneous Services	7692	\$5,000,000	1	0.1
		7699	\$5,000,000	136	19.7
79	Amusement and Recreation Services	7966	\$5,000,000	7	1.0
	Total			692	100.0

SUMMARY OF OUTREACH ACTIVITIES

Outreach to the regulated community is an important part of regulatory development. EPA has actively involved stakeholders in the development of the proposed rule in order to ensure the quality of information, identify and understand potential implementation and compliance issues, and explore regulatory alternatives. EPA has performed 39 site visits to TECI facilities and has participated in numerous meetings, seminars and workshops that included substantial small business representation. EPA also conducted a survey of the industry and received completed detailed questionnaires from 176 facilities. Since this rulemaking effort began in 1992, EPA has involved the three major trade associations (National Tank Truck Carriers, Railway Progress Institute, and the National Shipyard Association) and representatives of several small businesses in a variety of activities from questionnaire development to identification of regulatory options and compliance issues.

SUMMARY OF SBREFA OUTREACH

As part of its SBREFA outreach, EPA tentatively identified four small entity representatives (SERs) “for the purpose of obtaining advice and recommendations . . . about the potential impacts of the proposed rule;” (SBREFA, § 244(b)(2)) and provided the following list to the Chief Counsel for Advocacy of the Small Business Administration on April 4, 1997:

SERs	Company or Trade Association
Mr. John Conley	National Tank Truck Carriers
Mr. Robert Matthews	Railway Progress Institute
Mr. Matthew Reilly	Short Line Railroad Association
Mr. Allen Walker	National Shipyard Association

Two additional SERs subsequently joined the group. SBA identified Mr. Jack Waggener from Resource Consultants, Inc. (for the National Oil Recovery Association), and Ms. Dana Worcester from the Association of Container Reconditioners came forward at a public meeting in May. The outreach by both EPA and the Panel was directed to all six SERs.

The Panel’s subsequent outreach to those six SERs consists of the following:

- ! EPA sent background materials about the TECI to the SERs on June 6 and 27, 1997.
- ! EPA held a SER meeting to discuss the background materials and to address questions on July 2, 1997.
- ! EPA provided additional information on projected impacts and regulatory options to the SERs on July 16 and 17, 1997.

- ! EPA provided information on analytical costs for regulated pollutants, pollutant reductions, and other information on August 7, 1997.
- ! The Panel held a conference call with SERs on August 13, 1997, to obtain additional input. The conference call summary is Attachment B to this report.
- ! SERs provided additional written comments through September 5, 1997.

Attachment C lists all of the materials that EPA provided to the SERs and to the Panel.

SUMMARY OF INPUT FROM SMALL ENTITY REPRESENTATIVES

General Comments

Dana Worcester from the Association of Container Reconditioners (ACR) expressed concern that Intermediate Bulk Containers (IBCs) have been misclassified by EPA as transportation equipment. She explains that IBCs are like drums, and are classified as industrial packaging by the Department of Transportation (DOT) and recognized as containers by EPA under the Resource Conservation and Recovery Act (RCRA).

Ms. Worcester further indicated that a typical IBC holds the same volume as about five 55-gallon drums, while actual transportation equipment have capacities of thousands of gallons. Ms. Worcester suggested that, according to an EPA report, drum cleaning was considered an insignificant source of pollutants because empty drums contain only small amounts of residue. Similarly, ACR believes that IBCs are received at cleaning facilities RCRA-empty and are also insignificant sources of pollutants. ACR believes that EPA has overestimated the pollutant load from this segment of the industry.

Jack E. Waggener from Resource Consultants Inc., representing the National Oil Recyclers Association (NORA), stated that the estimated cost predicted for capital and operating expenses of the waste treatment facilities appear to be low. He feels that the costs are 50 to 100 percent lower than reality. He recommends that EPA and its contractor critique the cost model and offered to assist in the effort. He performed an assessment, based upon EPA's monitoring cost estimates, that monitoring costs alone would exceed \$34,000 per facility per year. He further expressed concern that EPA's estimates of labor hours to maintain and repair equipment are understated, specifically as they relate to filter press systems and in general as they represent labor hours over the life of any wastewater treatment equipment. He further expressed concern that the capital investment cost factors used by the Agency to estimate one-time costs in addition to direct capital costs are low, particularly for small systems, and provided alternative cost factors that he believes are more reflective of the costs that will be incurred by small businesses. He expressed further concern with his ability to assess EPA's costs of compliance estimates without information on the limitations to be proposed, indicating that he has witnessed limitations more restrictive than can be achieved by the identified technologies.

John Conley from the National Tank Truck Carriers (NTTC) indicated that some carriers may shift to dedicated service rather than incur the costs of compliance. He noted that dedicated service would involve an environmental "trade-off"; less cleaning, but greater fuel consumption and air emissions.

Dana Worcester (ACR) indicated that many reconditioners may refuse to accept IBCs if cleaning does not remain cost effective. This would lead to more disposal of IBCs or transportation to more distant cleaners, both of which have serious negative environmental impacts.

All of the SERs expressed concern that the regulation may have a substantial economic impact on the industry.

Number of Small Entities

John Conley (NTTC) noted that approximately 50 percent of NTTC's carrier members have total revenue from trucking operations under \$5 million and none of them generate over \$5 million in tank cleaning revenues. Most Associate Members (non-carrier companies involved in cleaning tank trucks owned by other companies) have revenues of less than \$5 million. He indicated that NTTC represents over 200 independent carrier companies and does not represent private carriers. He did not indicate the number of Associate Members represented, nor did he estimate the universe of non-represented entities likely to be affected by the regulation.

Dana Worcester (ACR) expressed concern that EPA's estimate of 288 affected businesses in the Truck Chemical Subcategory does not include IBC reconditioners that clean only IBCs. She indicated that ACR represents approximately 65 reconditioners, and ACR does not represent the entire reconditioner universe.

Allen Walker from the National Shipyard Association (NSA) identified 21 shipyard members with gross revenues of less than \$5 million. He did not estimate non-member shipyards, but recommended that the proposed rule be limited to shipyards primarily in the vessel cleaning business. This would avoid the impact on approximately 400 to 500 shipyards nationwide that may clean vessels incidental to or in preparation for repair.

Reporting, Record keeping and Other Compliance Requirements

John Conley (NTTC) stated that he does not know what the regulation will actually require in terms of record keeping or capital investments and that he could not comment on the impacts on small or large businesses. Mr. Conley said that there would be some impacts, especially in the case of increased monitoring and record keeping that will be required for pollutants not now covered.

Jack Waggener (NORA) expressed concern that EPA may have underestimated the analytical costs associated with compliance monitoring. He provided an assessment, based upon EPA's monitoring cost estimates, that monitoring costs alone would exceed \$34,000 per year, a figure in excess of the average annualized cost provided by EPA. He expressed concern that EPA's current annualized cost calculations do not include the monitoring cost component.

Dana Worcester (ACR) stated that EPA possessed no economic data from container reconditioners that handle only IBCs. ACR added that the additional cost EPA estimated for this industry would pose a “severe impact on businesses, many of which have average annual gross sales under 5 million.” According to ACR, this is particularly important because IBC reconditioning sales rarely exceed more than 15 to 20 percent of company revenue, most of the remainder of which is derived from the reconditioning of drums, which EPA is not proposing to cover in this rule.

Interaction with other Federal Rules

Jack E. Waggener (NORA) cited the Centralized Waste Treatment Effluent Guidelines (CWT) as a possible overlapping Federal Guideline. He contends that CWT Oily Waste Subcategory facilities could easily be covered also by the Petroleum Subcategory of the TECL, and the TECL Chemical Tank Car subcategory could overlap with the Organic and Metals Subcategories of CWT. He recommends, at a minimum, this overlap be avoided by clearly defining the scope of the regulations.

Jack Waggener also expressed concern for overlap with existing effluent guidelines for industrial sites that treat TEC wastewater in the same treatment system as industrial wastes covered by other effluent guidelines. He recommends that if the waste treatment facilities are covered by existing effluent guidelines or permits for the majority of their wastewater, and wastewater from TECL activity represents less than 40 percent, then the discharge should be exempt from the TECL regulations.

Allen Walker (NSA) noted that in the Fall of 1996, tank barge cleaning facilities in EPA non-attainment areas were required to install vapor recovery systems to meet new Clean Air Act requirements. Mr. Walker stated that this requirement affected a large majority of the cleaning facilities in Texas and Louisiana, all of which are small business entities under EPA’s definition. The vapor recovery systems required a capital investment of \$500,000 to \$1,000,000 per shipyard in addition to training and operations costs. He indicated that this additional capital investment has already pushed prices to the highest point that the market will bear, and disagreed with EPA’s assumption that some compliance costs could be passed through to vessel operators.

Suggested Regulatory Alternatives

Ms. Worcester (ACR) recommended that EPA remove IBCs from coverage under this rulemaking. She ended by saying that if EPA does not eliminate IBCs from this rulemaking, ACR recommends that EPA adopt a “de minimis” discharge level for the transportation equipment cleaning industry which would provide regulatory relief for insignificant discharges. ACR supports developing a “de minimis” limit consistent with EPA’s current definition of “significant industrial users,” which identifies the discharge volume of 25,000 gallons per day. She stated that this exemption is also consistent with other effluent guidelines developed by EPA (e.g., porcelain enameling).

Jack Waggener (NORA) notes that based on the information currently available, there are several subcategories that do not warrant being regulated at all by this regulation. Those are the Petroleum, Hopper, and Food Grade Subcategories. If these are not totally exempted from being covered by the TECI effluent guideline, he suggests a small business exemption based on the economic impact. He further recommends a low flow exemption of 10,000 to 25,000 gallons per day, and cites the electroplating and porcelain enameling effluent guidelines as examples of where this has been done in the past. For the Chemical Subcategories, Mr. Waggener suggests an exemption for small business based on the economic impact. Mr. Waggener also suggested that EPA consider a technology alternative of only flow reduction and oil/water separation. He expressed his opinion that a “large amount of the pollutants would be removed at a significantly lower cost impact.”

Allen Walker (NSA) agreed with Jack Waggener that the Hopper and Food Grade subcategories’ benefits do not warrant the costs and recommends that they not be regulated.

Clifford Harvison of the National Tank Truck Carriers, Inc. (NTTC), representing both large and small companies, recommended against separate requirements for small entities. Mr. Harvison noted difficulties in distinguishing between large and small companies in this industry because some small companies are exclusively cleaning operations while other companies, which are large, have only a small part of their business as cleaning. He noted that the amount of cleaning is not necessarily directly related to the company’s revenue. NTTC suggested that extended compliance deadlines might be appropriate for small businesses but not separate limitations.

PANEL FINDINGS AND DISCUSSION

It is important to note the Panel’s findings and discussion are based on the information available at the time this report was drafted. EPA is continuing to conduct analyses relevant to the proposed rule, and additional information may be developed or obtained during the remainder of the rule development process and from public comment on the proposed rule. Any options the Panel identified for reducing the rule’s regulatory impact on small entities may require further analysis and/or data collection to ensure that the options are practicable, enforceable, environmentally sound, and consistent with the Clean Water Act.

Number of Small Entities. The Panel noted the SER concerns that the estimate of affected facilities (and small entities) that would fall within the scope of the Tank Truck Chemical Subcategory may not include all cleaners of IBCs. EPA based its estimate on responses to the detailed questionnaire which showed that 80 of the 692 affected facilities clean approximately 90,000 IBCs per year. In most cases, wastewater from truck cleaning and IBC cleaning goes to the same collection and treatment facility. Few facilities have been identified by EPA that clean IBCs but not other types of covered transportation equipment, and of those, only one affected facility (which is actually a zero discharge facility) completed the detailed questionnaire. ACR indicated that 65 of its members clean IBCs as well as drums and would thus be covered by the proposed rule. It also indicated that there may be other, non-member IBC reconditioners affected by the proposed rule including many that may

clean small numbers of IBCs in-house. EPA will work with ACR to identify additional facilities that may be covered solely due to their cleaning of IBCs and solicit comments and information on this issue in the preamble.

EPA estimates there are 15 affected facilities that clean tank barges (8 small, 7 large), based on results from the detailed questionnaire. Allen Walker from NSA identified 21 member shipyard with cleaning facilities, most of which have gross revenues of less than \$5 million (small entities); he did not estimate how many non-member shipyards might be affected by the rule but noted that there are an additional 400 to 500 shipyards doing incidental cleaning as a part of repair and maintenance. EPA does not currently intend to cover repair facilities that clean transportation equipment as part of repair operations.

The Panel discussed the SER concern relating to which facilities are intended for coverage within the scope of the regulation. Specific SER questions related to cleaning operations versus facilities that must clean incidental to repair, and captive facilities that co-mingle cleaning wastewater with production wastewaters for combined treatment, will be clearly addressed by EPA in the preamble to the proposed rule and in the regulatory language defining the scope of this regulation. At present, EPA does not intend to cover in this proposed rule repair facilities that clean as part of repair operations, or captive facilities that commingle cleaning wastewaters with production wastewaters for combined treatment.

Record keeping, Reporting and other Compliance Requirements. The proposed rule contains no specific record keeping or reporting requirements. Monitoring for compliance with the limitations being established on regulated pollutant parameters will be determined under existing Title 40 of the Code of Federal Regulations Parts 122 and 403. The Panel notes that EPA's cost determination assumes monthly monitoring for toxic and nonconventional pollutants, and weekly monitoring for conventional pollutants. This monitoring frequency is less than that generally imposed by the permitting authority, but EPA believes this reduced monitoring is appropriate due to the relative costs of monitoring when compared to the estimated costs of complying with the limitations to be proposed. In the preamble, EPA will clearly indicate the monitoring assumptions that formed the basis of its costing and numeric limitations. EPA intends to issue guidance to local permitting authorities recommending that they use the monitoring frequencies suggested in the preamble when issuing permits to facilities in this industry, and explaining the rationale for the recommended frequencies.

Prior to proposal, upon making a final decision of the pollutants proposed to be regulated, EPA will re-evaluate and verify the costs associated with compliance in consideration of the comments made by NORA. EPA will fully document all models and assumptions used to predict compliance costs, and will solicit comment on these models and assumptions.

Interaction with Other Federal Rules. The Panel received comments that the economic assessment for the proposed rule did not take into consideration Clean Air Act compliance costs imposed on tank barge cleaning facilities in ozone non-attainment areas in the Fall of 1996. The Panel recommends that EPA perform a sensitivity analysis to determine if these additional costs would likely change the regulatory option recommended for proposal, and obtain information that would allow this additional expense to be factored into the economic analysis before promulgation.

The Panel also received comments recommending that the scope of the various effluent guidelines that are most likely to cause confusion or overlap be clearly articulated such that coverage can be accurately assessed and overlap avoided. The specific effluent guidelines cited by SERs and/or Panel members as potentially overlapping with the TECI rule included Centralized Waste Treatment, and Metal Products and Machinery. As previously stated, EPA intends to clearly address coverage in the preamble to the proposed rule and in the regulatory language defining the scope of this regulation. EPA does not intend this proposed rule to cover facilities already covered by other effluent guidelines.

Regulatory Alternatives. Supporting the preferred EPA option for the hopper, petroleum, and indirect food grade subcategories of no regulation, and recognizing that the preferred EPA option for the direct food grade subcategory is not projected to have a substantial effect on small businesses, the Panel focused its discussion on the most impacted subcategories--the chemical subcategories. The Panel invested a great deal of effort in examining the characteristics of these subcategories (particularly the largest subcategory, truck/chemical) in hopes of developing specific recommendations for a potential small business exemption that could be proposed without jeopardizing the pollutant removals and environmental benefits anticipated as a result of this regulation.

The Panel notes that EPA staff's recommended treatment technology for the truck/chemical subcategory is considerably more advanced than its recommended technology for the rail/chemical subcategory. Specifically, for indirect dischargers in the truck/chemical subcategory, EPA staff is currently considering limits based on a treatment system that includes flow reduction, equalization, oil/water separation, chemical oxidation, neutralization, coagulation, clarification, sludge dewatering, and carbon adsorption. EPA estimates that this treatment option would remove about 52 percent of the toxic equivalent loading from this subcategory at an average annual cost per firm of about \$100,000. In contrast, for indirect dischargers in the rail/chemical subcategory, EPA staff is considering limits based on flow reduction and oil/water separation only. EPA estimates that this treatment option would remove about 57 percent of the toxic equivalent loadings from this subcategory at an average annual cost per firm of about \$50,000. Presumably based on these estimates, one of the SER commenters notes that employing flow reduction and oil/water separation only would appear to remove a large amount of pollutants at significantly lower cost to the industry.

The Panel recognizes that a direct comparison of costs and removals between the two subcategories may not be appropriate, as facilities in the truck/chemical subcategory discharge a different mix of pollutants that may not be as amenable to treatment by the less advanced technology recommended for facilities in the rail/chemical subcategory. Nonetheless, the Panel notes the large cost difference and apparently small difference in effectiveness between the technologies being considered for the two subcategories. The Panel also notes that eliminating carbon adsorption from the recommended treatment sequence for the truck/chemical subcategory (which EPA identifies as its non-preferred Option 1), reduces compliance costs by a third while reducing pollutants removals by only a fifth. For small firms, eliminating carbon adsorption reduces cost by 57 percent while reducing removals by 17 percent. The Panel would be interested to know the effects on costs and removals of applying only flow reduction and oil/water separation to facilities in the truck/chemical subcategory. While it recognizes that there is not time to conduct such an analysis prior to completion of its report, the Panel recommends that EPA further explore this issue and give serious consideration to proposing a treatment

technology for facilities in the truck/chemical subcategory closer to that currently envisioned for the rail/chemical subcategory. The Panel also notes that whatever treatment options are ultimately proposed by EPA as the basis for establishing limitations, they must be fully consistent with the CWA statutory factors for establishing such limitations.

The Panel recommends that EPA take the following actions to provide additional information to explore regulatory alternatives: (1) solicit comment in the preamble to the regulation on specific control and treatment alternatives that are less expensive than those considered by the Agency for the chemical subcategories, but still remove a significant share of toxic pollutants; and (2) include a clear discussion of the analysis EPA has conducted to date on the economic impacts and related removals, discussing the effects of less advanced treatment technologies, to the extent they have been analyzed.

The Panel also discussed the concern raised by ACR regarding the pollutant loadings being contributed by IBCs, and ACR's recommendation that IBCs be exempt from coverage under the regulation. ACR states that discharges from IBCs are significantly less than discharges from transported drums, an industry sector that EPA had already chosen not to regulate based on findings of a 1989 industry study conducted by the Agency. The Panel recommends that EPA evaluate information related to discharges from IBCs to determine if facilities that clean IBCs but no other covered transportation equipment warrant regulation. SBA further recommends, based on the ACR comments, the insignificant pollutant loadings, and the significant small business economic impact, that wastewater generated by IBCs be exempted from this rulemaking.

SBA raised concerns regarding whether the pollutant loadings in the rail/chemical and truck/chemical subcategories are representative of those subcategories, noting that seven pesticides alone account for the vast majority of the pollutant loadings in those two subcategories. EPA is currently reexamining loadings estimates to ensure that they are representative for those two subcategories. Once these loading estimates are reexamined, the Panel recommends that EPA request comment on whether or not the loadings of non-pesticide chemicals warrant regulation. SBA recommends that EPA employ pesticide-only subcategories in the proposal instead of the EPA proposed subcategories that include all chemicals, in order to increase the cost-effectiveness of the rule and reduce small business burdens.

Small Business Exemption. Based on EPA's analysis to date, it appears that the rule may have a significant economic impact on a substantial number of small businesses. Although the Agency's modeling projects no firm closures as a result of the rule, analysis provided to the Panel on August 19, 1997 indicates that estimated compliance costs for the smallest 57 facilities in the truck/chemical subcategory represent 20 percent of revenues and over 400 percent of cash flow (defined by the Agency as income plus depreciation) for this group. For the smallest 164 facilities (out of a total of 288 in this subcategory), compliance costs represent 11 percent of revenues and over 50 percent of income. While analysis at this level of detail was not performed for other smaller subcategories, EPA projects that 6 out of 9 small businesses (defined for this rule as those with less than \$5 million in annual revenues) in the rail/chemical subcategory and 8 out of 8 small business in the barge/chemical subcategory would have costs in excess of 3 percent of sales.

EPA believes that despite these high ratios, its proposed options may be economically achievable through industry-wide price increases that would at least partially offset the impact of the rule on small businesses. As noted above, however, one commenter has suggested that such price increases may not be possible for the shipyard industry, which has reportedly absorbed large cost increases due to new regulations under the Clean Air Act. Given the uncertainty inherent in modeling future market responses from past data, the Panel remains concerned about the magnitude of the estimated compliance costs for the proposed rule relative to the sales and income of small firms.

The Panel recognizes that EPA has conducted extensive analyses in an attempt to develop a small business exemption that would provide economic relief without removing a significant portion of the pollutant loading from this industry from coverage under the rule. The Agency has so far been unable to identify such an exemption because there are small firms which specialize in equipment cleaning and larger ones which perform only a limited amount of cleaning incidental to their primary line of business, with the result that some small firms contribute significantly more pollutant loadings than other much larger ones. EPA estimates that exempting all businesses with revenues under \$5 million would remove 20 to 25 percent of total industry pollutant loadings from coverage under the rule.

On the other hand, the Panel also notes that baseline pollutant loadings from facilities in this industry are modest relative to those from facilities in most other industries for which effluent guidelines have been promulgated. Facilities in the three chemical subcategories average less than 4 pounds/day in toxic equivalent loadings, of which the rule would eliminate about half.

The Panel thus recommends that EPA continue to work on developing a small business exemption that would provide relief for those small firms for which projected compliance costs represent a significant share of net income and/or cash flow. One option would be for the Agency to propose and take comment on an exemption for firms with revenues under \$5 million, including a discussion of the effects of such an exemption on both economic achievability and pollutant removals. Alternatively, the Agency might wish to propose an exemption based on some other variable, such as wastewater flow or tanks cleaned, that would target firms with low pollutant discharges while still providing economic relief to the most economically vulnerable.